

## **REMARKS/ARGUMENTS**

### **I. General Remarks**

Applicants respectfully request that the above amendments be entered, and further request reconsideration in light of the amendments and remarks contained herein. Applicants thank the Examiner for his careful consideration of this application.

### **II. Disposition of the Claims**

Claims 1-186 are pending in this application. Claims 1-76 and 113-186 are canceled in response to restriction requirement. Claims 77-112 are rejected. Claims 77 and 91-96, 100, and 105 have been amended herein, and claims 89-90 have been canceled.

### **III. Remarks Regarding Restriction/Election Requirement**

During a telephone conference with the Examiner on March 9, 2006, Applicants made a provisional election without traverse to prosecute the invention of Group V, claims 77-112. Affirmation of this election is hereby made. Accordingly, Applicants have canceled claims 1-76 and 113-186. Applicants reserve the right to pursue these claims as filed in a divisional or other continuing application.

### **IV. Remarks Regarding Nonstatutory Double Patenting Rejections**

#### **A) Nonstatutory Double Patenting Rejection over U.S. Patent 6,476,179**

Claims 77-112 stand rejected on the ground of nonstatutory double patenting over claims 1-7 and 13-19 of U.S. Patent No. 6,476,179 issued to Ito *et al.* (hereinafter *Ito*).

The standard for a double patenting rejection is whether the claim in the application is an obvious variation of an invention claimed in the patent. *See Manual of Patent Examining Procedure* § 804(B)(1) (8th ed., rev. 4, Oct. 2005) (hereinafter "MPEP"). This double patenting analysis is confined to a comparison to the claims in the patent, and not to use of the disclosure of the patent as prior art. *See* MPEP § 804(III). As far as Applicants can determine, nothing in the claims of *Ito* suggests anything remotely related to Applicants' claims. *Ito* appears to be directed to methods of producing a starting material for polycarbonate resin production, whereas Applicants' claims are directed to methods for acidizing subterranean formations penetrated by a well bore. Accordingly, Applicants respectfully submit that Applicants' claims are not obvious over the cited claims of *Ito*, and respectfully request the removal of this rejection with respect to independent claim 77 and the claims that depend

therefrom, claims 78-88 and 91-112. In the event that *Ito* has been cited in error and in the event that the Examiner actually intended to cite another patent against Applicants, Applicants respectfully request that the non-final Office Action be withdrawn and reissued with a revised rejection statement and that the time for reply be reset.

**B) Provisional Nonstatutory Double Patenting Rejection over U.S. Patent Application Nos. 10/612,271, 10/763,800, 10/780,995, 10/806,894, and 10/825,001.**

Certain claims stand rejected under the judicially created doctrine of nonstatutory double patenting over co-pending Application Nos. 10/612,271, 10/763,800, 10/780,995, 10/806,894, and 10/825,001. (Office Action at 8-10.) Submitted herewith is an appropriate terminal disclaimer in compliance with 37 C.F.R. § 1.321 disclaiming the appropriate term. Accordingly, Applicants respectfully submit that the double patenting rejections have been overcome, and respectfully request the withdrawal of these rejections.

**V. Remarks Regarding Rejection of Claims under 35 U.S.C. § 102(b)**

Claims 77-86, 88-100 and 102-112 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,532,052 issued to Weaver *et al.* (hereinafter "*Weaver*"). With respect to this rejection, the Examiner states that:

Weaver discloses a method for fracturing or acidizing a subterranean formation to substantially alter the fluid flow (permeability) and/or surface characteristics of the formation, said method including injecting into the formation an aqueous composition that can alter the properties of organic/aqueous fluids, said composition containing a branched water-soluble organic polymer containing unit(s), having a molecular weight of 900-50,000,000, that can be hydrophilic, hydrophobic, or a combination thereof, and can further include a gelling agent and/or a proppant. (Abstract; col. 5, lines 1-10 and 30-65; col. 6, lines 29-65; col. 7, lines 7-33; col. 9, lines 32-37 and 49-63; col. 20, line 65 to col. 21, line 6; col. 21, lines 49-63; col. 39, lines 24-36; See also, Table 6 on col. 53-54 disclosing data of aqueous fluid diverting and water permeability reduction properties for an aqueous fluid containing a methoxypolyethylene oxide branched polydimethylaminoethyl methacrylate copolymer, sand, silica flour, and bentonite)

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In Procedure O beginning on col. 50, line 5, Weaver discloses an example of altering the permeability of a formation surface

(change in water-oil ratio) by injecting into the formation a copolymer of polydimethylaminoethyl methacrylate (PDMAEM have MW of 1 million) grafted with a polyethylene oxide branch (PEO, MW of 15,000). The resulting data showing reduction in water permeability of the formation is shown in Tables 7 and 8. (See also Tables 10-13 on col. 57-59 for permeability data of an aqueous treating solution containing 1% of a hydrophilic PDMAEM polymer (MW of 600-800K) branched with a hydrophobic methoxy-polyethylene glycol epichlorohydrin (MPEO) adduct. . .

(Office Action at 11-14.) Applicants respectfully disagree. *Weaver* does not disclose every element of claims 77-86, 88-100 and 102-112 as required to anticipate these claims under 35 U.S.C. § 102(b). See MPEP § 2131.

In particular, *Weaver* does not disclose a “hydrophobically modified water-soluble polymer that comprises polar heteroatoms within the polymer backbone, wherein the hydrophobically modified water-soluble polymer is capable of reducing permeability of the subterranean formation to an aqueous-based fluid,” as recited in independent claim 77. Rather, *Weaver* is directed to a hydrophobically modified polymer that increases permeability of the subterranean formation to aqueous-based fluids. *Weaver*, col. 7, lines 43-52, emphasis added. As depicted in the table in Columns 9 and 10, *Weaver* is directed to the use of hydrophobically modified polymers to increase water permeability. Accordingly, *Weaver* does not disclose or suggest the use of hydrophobically modified polymers to reduce water permeability, and thus does not disclose every element of independent claim 77.

Furthermore, *Weaver* does not disclose a “hydrophilically modified water-soluble polymer that comprises a polymer backbone comprising polar heteroatoms, wherein the hydrophilically modified water-soluble polymer is a reaction product of a hydrophilic polymer and a hydrophilic compound” as recited in claim 77. Rather, *Weaver* discloses that “[t]he branched polymer can also be made by reacting or polymerizing one or more monomers onto reactive sites in or on the backbone chain to produce random length branches at various locations on the backbone polymer and/or on various branch chains.” *Weaver*, col. 14, lines 68-col 15, line 5. Nowhere does *Weaver* disclose that the hydrophilically modified water-soluble polymer is a reaction product of a hydrophilic polymer and a hydrophilic compound. The reactions needed to form the relative permeability modifiers of the present invention may occur prior to the addition of the relative permeability modifiers into the permeability-modifying aqueous treatment fluids

of the present invention (*e.g.* pre-reacted embodiments), or they may occur *in situ* (*e.g.*, *in situ* reaction embodiments). (See *Present Application* at 6.). This is a distinct advantage of the methods of the present invention over *Weaver*. Thus, *Weaver* does not disclose every limitation of independent claim 77.

Therefore, Applicants respectfully assert that independent claim 77 is not anticipated by *Weaver*. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejections as to independent claim 77 and its dependents, claims 78-88 and 91-112.

#### **VI. Remarks Regarding Rejection of Claims under 35 U.S.C. § 103(a)**

Claims 83, 86-88, 89, 96-98 and 100-101 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Weaver* in view of U.S. Patent No. 6,358,889 issued to Waggenpack *et al.* (hereinafter "*Waggenpack*"). Applicants respectfully disagree. As discussed above in Section IV, *Weaver* does not teach each and every limitation of claim 77, from which claims 83, 86-88, 89, 96-98 and 100-101 depend. Nor can *Waggenpack* be used to provide the missing limitations. Accordingly, Applicants respectfully request withdrawal of this rejection with respect to claims 83, 86-88, 89, 96-98, and 100-101.

#### **VII. No Waiver**

All of Applicants' arguments are without prejudice or disclaimer. Additionally, Applicants have merely discussed example distinctions from the cited references. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner's additional statements, such as, for example, any statements relating to what would be obvious to a person of ordinary skill in the art. The example distinctions discussed by Applicants is sufficient to overcome the double patenting, anticipation, and obviousness rejections.

#### **SUMMARY AND PETITION FOR EXTENSION OF TIME OF ONE MONTH TO FILE THIS RESPONSE**

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this

application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants hereby petition under the provisions of 37 C.F.R. § 1.136(a) for a one-month extension of time to file this Response.

The Commissioner is hereby authorized to debit the Deposit Account of Halliburton Energy Services, Inc., No. 08-0300 in the amount of \$250.00 for the fee under 37 C.F.R. § 1.136(a) for the One-Month Petition for Extension of Time to File this Response and the terminal disclaimer fee under 37 C.F.R. 1.20(d). Should the Commissioner deem that any additional fees are due, including any fees for extensions of time, Applicants respectfully request that the Commissioner accept this as a Petition Therefor, and direct that any additional fees be charged to the Deposit Account of Halliburton Energy Services, Inc., No. 08-0300.

Respectfully submitted,



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